**401 KAR 61:020. Existing process operations.**

RELATES TO: KRS 224.20-100, 224.20-110, 224.20-120
STATUTORY AUTHORITY: KRS 224.10-100
NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the Environmental and Public Protection Cabinet to prescribe administrative regulations for the prevention, abatement, and control of air pollution. This administrative regulation provides for the control of emissions from existing process operations which are not subject to another particulate emission standard within this chapter.

Section 1. Applicability. (1) The provisions of this administrative regulation shall apply to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates in this chapter, commenced before the classification date defined below.

(2) The provisions of this administrative regulation which apply to affected facilities or sources located in nonattainment areas shall continue to apply to those affected facilities or sources if the area is redesignated to attainment or unclassified status in 401 KAR 51:010 or 40 CFR 81.318, unless a state implementation plan which provides for other controls is approved by the U.S. EPA.

Section 2. Definitions. As used in this administrative regulation, all terms not defined herein shall have the meaning given them in 401 KAR 50:010.

(1) "Process operation" means any method, form, action, operation or treatment of manufacturing or processing, and shall include any storage or handling of materials or products, before, during, or after manufacturing or processing.

(2) "Process weight" means the total weight of all materials introduced into any affected facility which may cause any emission of particulate matter, but does not include liquid and gaseous fuels charged, combustion air, or uncombined water.

(3) "Classification date" means July 2, 1975.

(4) "Process weight rate" means a rate established as follows:

(a) For continuous or long-run steady state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof;

(b) For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period; and

(c) Where the nature of any process operation or the design of any equipment is such as to permit more than one (1) interpretation of this definition, the interpretation which results in the minimum value for allowable emission shall apply.

(5) "Affected facility" as related to process operations means the last operation preceding the emission of air contaminants which results:

(a) In the separation of the air contaminant from the process materials; or

(b) In the conversion of the process materials into air contaminants, but does not include an air pollution abatement operation.

(6) "Continuous emission" means a visible emission of particulate matter which persists for more than three (3) minutes, the opacity of which is measured in accordance with Reference Method 9, filed by reference in 401 KAR 50:015.

(7) "Intermittent emission" means a visible emission of particulate matter which persists for three (3) minutes or less, the opacity of which is measured in accordance with Kentucky Method

150(F-1), filed by reference in 401 KAR 50:015.

Section 3. Standard for Particulate Matter. (1) Opacity standard.

(a) No person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity.

(b) No person shall cause, suffer, allow or permit any continuous or intermittent fugitive emission into the open air from any affected facility or source located in any area designated nonattainment for total suspended particulates under 401 KAR 51:010 which is equal to or greater than twenty (20) percent opacity, or which remains visible beyond the lot line of the property on which the emission originates.

(c) Variation with the standards specified in paragraph (b) of this subsection, when supported by adequate technical information, will be considered by the cabinet on a case-by-case basis to allow for technological or economic circumstances which are unique to a source, provided that such a variance has been approved by the U.S. EPA.

(2) Mass emission standard.

(a) For emissions from a control device or stack, no person shall cause, suffer, allow or permit the emission into the open air of particulate matter from any affected facility which is in excess of the quantity specified in Appendix A of this administrative regulation.

(b) An affected facility may elect to substitute the following standards in lieu of the value given in Appendix A:

1. A maximum exit particulate emission concentration of 0.02 grains per standard cubic foot;
2. Air pollution control equipment of at least ninety-seven (97) percent actual efficiency; and
3. Addition of dilution air shall not constitute compliance.

Section 4. Test Methods and Procedures. Except as provided in 401 KAR 50:045, performance tests used to demonstrate compliance with Section 3 of this administrative regulation shall be conducted according to the following methods (Kentucky Methods 50 and 150(F-1) and other methods are filed by reference in 401 KAR 50:015):

(1) Kentucky Method 50 for sources located in or having a significant impact upon nonattainment areas for total suspended particulates as designated in 401 KAR 51:010, and Reference Method 5 for sources located in all other areas, for the emission rates of particulate matter and the associated moisture content.

(2) Reference Method 1 for sample and velocity traverses.

(3) Reference Method 2 for velocity and volumetric flow rate.

(4) Reference Method 3 for gas analysis.

(5) Reference Method 9 for opacity of continuous emissions.

(6) Kentucky Method 150(F-1) for opacity of intermittent emissions.

(7) For Kentucky Method 50 and Reference Method 5, Reference Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least sixty (60) minutes and the minimum sample volume shall be 0.85 dscm (thirty (30) dscf) except that smaller sampling time or volumes, when necessitated by process variables or other factors, may be approved by the cabinet. (5 Ky.R. 476; Am. 1050; eff. 6-6-79; 8 Ky.R. 1437; 9 Ky.R. 583; eff. 12-1-82; 13 Ky.R. 275; eff. 9-4-86; 14 Ky.R. 1633; eff. 4-14-88; TAm eff. 8-9-2007.)

APPENDIX A TO 401 KAR 61:020
ALLOWABLE RATE OF PARTICULATE EMISSION

| BASED ON PROCESS WEIGHT RATE | | |
|---|---|---|
| Lb/Hr. | Process Weight Rate Ton/Hr. | Maximum Allowable Emission Rate Lb/Hr. |
| 1,000 or less | 0.50 or less | 2.58 |
| 1,500 | 0.75 | 3.38 |
| 2,000 | 1.00 | 4.10 |
| 2,500 | 1.25 | 4.76 |
| 3,000 | 1.50 | 5.38 |
| 3,500 | 1.75 | 5.96 |
| 4,000 | 2.00 | 6.52 |
| 5,000 | 2.50 | 7.58 |
| 6,000 | 3.00 | 8.56 |
| 7,000 | 3.50 | 9.49 |
| 8,000 | 4.00 | 10.4 |
| 9,000 | 4.50 | 11.2 |
| 10,000 | 5.00 | 12.0 |
| 12,000 | 6.00 | 13.6 |
| 16,000 | 8.00 | 16.5 |
| 18,000 | 9.00 | 17.9 |
| 20,000 | 10.00 | 19.2 |
| 30,000 | 15.00 | 25.2 |
| 40,000 | 20.00 | 30.5 |
| 50,000 | 25.00 | 35.4 |
| 60,000 | 30.00 | 40.0 |
| 70,000 | 35.00 | 41.3 |
| 80,000 | 40.00 | 42.5 |
| 90,000 | 45.00 | 43.6 |
| 100,000 | 50.00 | 44.6 |
| 120,000 | 60.00 | 46.3 |
| 140,000 | 70.00 | 47.8 |
| 160,000 | 80.00 | 49.1 |
| 200,000 | 00.00 | 51.3 |
| 1,000,000 | 500.00 | 69.0 |
| 2,000,000 | 1,000.00 | 77.6 |
| 6,000,000 | 3,000.00 | 92.7 |

Interpolation of the data for process weight rates up to 60,000 lb/hr. shall be accomplished by use of the equation

$$E = 4.10P^{0.67}$$

and interpolation and extrapolation of the data for process weight rates in excess of 60,000 lb/hr.

shall be accomplished by the use of the equation

$$E = 55.0P^{0.11}-40$$

where E = rate of emission in lb/hr and P = process weight rate in tons/hr.